

REMARKS

The undersigned thanks the Examiner for the courtesies extended during the interview of August 31, 2004.

Claims 39-46 were rejected under 35 USC 112, first paragraph. This rejection is respectfully traversed.

The Examiner's position is that the specification does not disclose a copy layer having a coercivity between 1 kOe and 2 kOe. Please refer to page 8, last full paragraph, of the specification. This paragraph is also quoted below.

Claims 24, 25, 30 and 45 were rejected as being obvious over Kim. This rejection is respectfully traversed.

During the interview, the undersigned explained to the Examiner that claim 24 specifically requires that the write layer is above the substrate and that the copy layer is above the write such that *the write layer will be between the substrate and the copy layer*. On the hand, Kim discloses that the copy layer (reproduction layer 13) should be between the substrate 11 and write layer (recording layer 16), as shown in Figure 1 of Kim. Furthermore, Kim does not provide any reason as to why persons of ordinary skill should reverse this order. In fact, in most conventional recording media, the recording layer is near the top of the layer stacking on the substrate, followed by one or more protection layers above the recording layer as shown in Figure 1 of Kim. Such a conventional stacking sequence allows the recording head to record data in the recording layer with a minimum number of intervening layers between the recording head and the recording layer. In short, Kim's stacking arrangement of the reproduction and write layers is a conventional arrangement, and it would not have been obvious to persons of ordinary skill to reverse the order. Also, there is no evidence on the record suggesting a reversal of the stacking order. During the interview, the Examiner said that the undersigned should present the above argument on the record.

Also, during the interview, the Examiner asked if the present invention resulted in any unexpected results. On this issue, the undersigned focused the Examiner's attention to page 8, last full paragraph, of the specification:

One notable and unexpected feature in FIG. 6 is the presence of good perpendicular anisotropy for Co/Pt, which is polycrystalline, when deposited on TbFeCo, which is amorphous. Prior to this, the inventors are not aware of any experimental success in growing Co/Pt on amorphous TbFeCo. Furthermore, the observed coercivity for the Co/Pt layer is in the desired 1-2 kOe range for proper copy layer function, as described above.

In addition, there is one another unexpected result of this invention, particularly resulting from the following limitation of claim 24:

wherein the write layer comprises a ferromagnetic material having a high coercivity at room temperature and a high write temperature T_{write} , and the copy layer comprises a ferromagnetic material having a coercivity always less than the coercivity of the write layer at the same temperature and a copy temperature T_{copy} substantially less than the write temperature of the write layer.

This function of the claimed invention, namely that the margin between T_{copy} and T_{write} be sufficient, unexpectedly results in stability of the memory layer during read. This function provides effective thermal confinement of track bound-grooves for isolating the laser beam heating to the recording track of interest when the laser beam spot size is comparable to the land width. Thus, the claimed media is especially useful in recording data on narrow-grooved media, i.e., media where the data is recorded on wide lands. The above mentioned unexpected results are explained and demonstrated in the specification. See page 8, line 2 from the bottom to page 9, last line.

Please note that "[c]onsistent with the rule that all evidence of nonobviousness *must* be considered when assessing patentability, the PTO *must* consider comparative data in the specification in determining whether the claimed invention provides unexpected results." *In re Soni*, 54 F.2d 746, 34 USPQ2d 1684 (Fed. Cir. 1995) (emphasis added).

In making this obviousness rejection, the Examiner has acknowledged on page 2, last line to page 3, first line, that Kim does not disclose “the coercivity force of copy layer is less than write layer.” Applicants respectfully submit that Kim further does not disclose a copy layer having “a copy temperature T_{copy} substantially less than the write temperature of the write layer” as recited in claim 24. Yet, the Examiner has asserted that these limitations would have been obvious because “[t]he fabricating of magneto-optical recording medium with ferromagnetic materials have been known in the art.” Please see page 3, lines 3 and 4, of the Action. However, the Examiner has provided *no evidence* to support this statement.

The Examiner’s reasons for motivation to modify Kim does not establish a *prima facie* case of obviousness, because the Examiner has failed to why provide any evidence that Kim can be modified to arrive at the invention of claim 24 or that persons of ordinary skill in this art would have been motivated to modify Kim in a *specific manner* to arrive at this claimed invention. As emphasized by the court in *In re Lee*, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002), the Examiner must present *specific evidence* as to how Kim can be modified to arrive at the invention of claim 24 and of motivation to make such a modification, which the Examiner has failed to provide. The lack of any explicit statement on how to modify Kim or motivation to modify Kim comes nowhere close to the analysis required by *Lee*.

The appropriate question to ask at this point in the analysis is: why, based on Kim, would a person of ordinary skill in the art have had *any* reason to modify Kim, and even if one would do so, whether one would arrive at the claimed invention of claim 24? There is only one reasonable answer: impermissible hindsight reliance on Appellant’s disclosure and claims as a roadmap to modify Kim. This failure to present evidence of motivation requires that the rejection of claim 24 be withdrawn.

Claims 26-29 and 34 and 38 were rejected as being obvious over Kim in view of Utsunomiya. This rejection is respectfully traversed.

Claims 26-29 and 34 and 38, directly or indirectly, depend from claim 24. Utsunomiya does not fill the gaps in Kim, stated above.

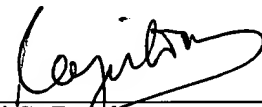
A Notice of Allowance is respectfully solicited.

In the event that the transmittal letter is separated from this document and the Patent and Trademark Office determines that an extension and/or other relief is required, applicant's petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. **146712009500**.

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Respectfully submitted,

By: _____


Raj S. Dave
Registration No. 42,465

Morrison & Foerster
2000 PENNSYLVANIA AVENUE, N.W.
WASHINGTON, D.C. 20006-1888
TELEPHONE: (202) 887-1500
FACSIMILE: (202) 887-0763